

1     **WHAT IS CLAIMED IS:**

2     1.     A personal broadcast server system for providing a customized broadcast to one  
3     or more users over a transmission media, comprising:

- 4     a)     a data storage device for storing a plurality of broadcast elements;  
5     b)     a data management system for storing a user profile and a user state for  
6             each of said one or more users, wherein said data management system  
7             further stores information associated with each of said plurality of  
8             broadcast elements;  
9     c)     a broadcast element selector having one or more broadcast element  
10            selection functions, wherein each broadcast element selection function  
11            is operable to select broadcast elements from said data storage device  
12            based on a user's user profile, the user's user state, and the information  
13            associated with each of said plurality of broadcast elements; and  
14     d)     a broadcast server operable to receive the selected broadcast elements  
15            from said data storage device and to provide the selected broadcast  
16            elements to the user over the transmission media.

17    2.     The personal broadcast server system of claim 1 wherein said data storage device  
18    is a file server.

19    3.     The personal broadcast server system of claim 1 wherein said data management  
20    system is a database.

21    4.     The personal broadcast server system of claim 1 wherein the system comprises a  
22    single computing device.

23    5.     The personal broadcast server system of claim 1 wherein the system comprises  
24    multiple computing devices.

25    6.     The personal broadcast server system of claim 1 wherein said data management  
26    system further includes a history of usage for each of said one or more users, and wherein  
27    said broadcast element selector is further operable to exclude broadcast elements from  
28    being delivered to a user based on the user's history of usage.

29    7.     The personal broadcast server of claim 1 wherein said broadcast element selector  
30    retrieves the user profile and user state directly from said data management system.

1 8. The personal broadcast server of claim 1 wherein said broadcast server retrieves  
2 the user profile and user state from said data management system and provides said user  
3 profile and user state to said broadcast element selector.

4 9. The personal broadcast server system of claim 1 wherein said broadcast elements  
5 include audio.

6 10. The personal broadcast server system of claim 1 wherein said broadcast elements  
7 include video.

8 11. The personal broadcast server system of claim 1 wherein said transmission media  
9 is the Internet.

10 12. The personal broadcast server system of claim 1 wherein said transmission media  
11 is a local area network.

12 13. The personal broadcast server system of claim 1 wherein said transmission media  
13 is a wireless communications network.

14 14. The personal broadcast server system of claim 1 wherein the user profiles stored  
15 in the data management system include initial registration information derived from when  
16 the user first logs in.

17 15. The personal broadcast server system of claim 1 wherein the user profiles stored  
18 in the data management system include information related to a user's preferred  
19 frequency of content.

20 16. The personal broadcast server system of claim 1 wherein the user profiles stored  
21 in the data management system include demographic information relating to each user.

22 17. The personal broadcast server system of claim 1 wherein the user profiles stored  
23 in the data management system are automatically updated based on the user's pattern of  
24 usage.

25 18. The personal broadcast server system of claim 1 wherein said broadcast element  
26 selector selects broadcast elements based on a collaborative filtering process.

27 19. The personal broadcast server system of claim 1, wherein the system is  
28 implemented in software on a single computer.

29 20. The personal broadcast server system of claim 1, wherein the system is  
30 implemented as multiple software programs executing on more than one server.

1 21. The personal broadcast server system of claim 20, wherein the servers are located  
2 in more than one physical location.

3 22. The personal broadcast server system of claim 1, wherein said each broadcast  
4 element selection function is operable to select broadcast elements based on a user  
5 request.

6 23. In a system for providing a customized radio broadcast to one or more users, a  
7 personal radio server system comprising:

8 a general purpose computer having a central processing unit and memory for  
9 storing user profiles for one or more users;

10 said central processing unit implementing a program that causes the central  
11 processing unit to produce individual audio streams for each of the one or  
12 more users based on the user profiles stored in memory.

13 24. The personal radio server system of claim 23 wherein the individual audio  
14 streams comprise one or more audio elements.

15 25. The personal radio server system of claim 24 wherein the audio elements are  
16 stored as a library of digital elements.

17 26. The personal radio server system of claim 25 further comprising a file server for  
18 storing the library of digital elements.

19 27. The personal radio server system of claim 26 further comprising an audio element  
20 selector for selecting audio elements for each of the one or more users.

21 28. The personal radio server system of claim 27 wherein the audio element selector  
22 is implemented as separate threads for each of the one or more users.

23 29. A personal radio server system for providing a customized radio to one or more  
24 users over a transmission media, comprising:

25 a) a data storage device for storing a plurality of audio elements;

26 b) a data management system for storing a user profile and a user state for  
27 each of said one or more users, wherein said data management system  
28 further stores information associated with each of said plurality of  
29 audio elements;

30 c) an audio element selector having one or more audio element selection  
31 functions, wherein each audio element selection function is operable to

1 select audio elements from said data storage device based on a user's  
2 user profile, the user's user state, and the information associated with  
3 each of said plurality of audio elements; and

4 d) an audio server operable to receive the selected audio elements from said  
5 data storage device and to provide the selected audio elements to the  
6 user over the transmission media.

7 30. The personal radio server system of claim 29 wherein said data storage device is a  
8 file server.

9 31. The personal radio server system of claim 29 wherein said data management  
10 system is a database.

11 32. The personal radio server system of claim 29 wherein the system comprises a  
12 single computing device.

13 33. The personal radio server system of claim 29 wherein the system comprises  
14 multiple computing devices.

15 34. The personal radio server system of claim 29 wherein said audio elements include  
16 advertising.

17 35. The personal radio server system of claim 29 wherein said audio elements include  
18 talk by a DJ.

19 36. The personal radio server system of claim 29 wherein said audio element server  
20 comprises a radio program clock for selecting the type of audio element to transmit based  
21 on frequency parameters specified in a particular user's profile.

22 37. The personal radio server system of claim 36 wherein the frequency parameters  
23 are selected by the user.